

Dr. Leras prevailed on several medical men to try on their patients a solution of pyrophosphate of iron and soda, prepared by himself, and the results have just been published by Messrs. Follet and Baume in a "Report on the Clinical Service at the Asylum of St. Athanasius during the year 1856." They say that even in cases where there is no longer any hope of curing the mental maladies, there may still be a means of retarding the physical decline, which supervenes in almost all the patients in the same form, by a gradual failure of general innervation—a decline which is shown frequently in the decomposition of the blood, from which result those dropsies which are met with in all the tissues. In such cases, all the efforts of medication ought to be directed to the reconstitution of the blood, and when this result is obtained, it is not unfrequently seen that the system recommences its functions, a reaction in the inverse direction of the disease sometimes taking place; it is the prelude of an unexpected cure.

Messrs. Follet and Baume know no tonics which act so promptly and favourably as the pyrophosphate of iron and soda, prepared by M. Leras, in a liquid form; it is easy to administer, rapidly absorbed, and does not produce fatigue to the digestive organs. They then give the particulars of seven cases in which the medicine was tried during the year 1856; the results are certainly remarkable.

13. *On the Preparation and Therapeutical Employment of Subcarbonate of Bismuth.*—The following is the mode of preparation of the subcarbonate of bismuth described by M. HANNON, Professor at the University of Brussels. The bismuth is first purified by melting this metal in powder with ten times its weight of powdered nitre. After cooling, the metal is again powdered, and mixed with ten times its weight of nitre, and after a second fusion the bismuth may be considered as entirely free from the arseniurets and sulphurets which it almost always contains. Then three parts of nitric acid are put into a retort, and one part of pure bismuth is added. When the reaction is complete, about a third of the liquid is evaporated, then the solution is poured drop by drop into a solution of carbonate of soda, and a white precipitate is obtained, which is subcarbonate of bismuth. The precipitate, after having been washed five or six times with distilled water, is thrown upon a filter, and washed again to remove the last traces of carbonate of soda. It should be preserved in well-stopped bottles. The physiological properties of the salts of bismuth are very little known, for the simple reason that the subnitrate is the only salt which has been employed in medicine. The operation even of this salt is not well understood, as its insolubility offers an obstacle to the observation of the physiological phenomena which might have been observed in the other salts of bismuth, such as the citrate, the tartrate, the acetate, or the carbonate. It is also the insolubility of the subnitrate which renders it inefficient in the greater part of the cases in which it is indicated; and it also occasionally produces a very inconvenient sensation of weight at the stomach. The subcarbonate is soluble in the gastric juice, its action is rapid, it produces no sensation of weight at the stomach, it rarely constipates, colours the stools less than the subnitrate, and may be employed for a long time without oppressing the stomach. The action of the subcarbonate appears to be sedative during the first days of its employment, and subsequently to excite all the phenomena which result from the action of tonics.

As to its therapeutical action, it may be noted that all cases of gastralgia consecutive upon phlegmasia of the digestive passages, cases in which the tongue is red and pointed, and cases in which the digestion is laborious and accompanied with putrid or acid eructations, or in which there is a tendency to diarrhoea or spasmodic vomiting, demand the employment of the subcarbonate of bismuth. This salt is also required in the vomiting of children, whether caused by dentition or succeeding to frequent fits of indigestion, and in the diarrhoea of weak children, especially when occurring at the time of weaning. One great advantage possessed by the subcarbonate of bismuth is, that it neutralizes the acids in excess which are found in the stomach. The subnitrate, as is well known, fails always in this respect. In all the cases where the subcarbonate has been taken, the pain in the digestive passages is first found to

disappear; then the eructations cease, together with the vomiting or diarrhoea; the digestion becomes less and less laborious, the tongue gradually receives its normal form and colour, and, if the use of the subcarbonate is continued, the appetite increases from day to day, the yellow tint of the countenance disappears, and the face becomes coloured at the same time as it ceases to be shrivelled.

The subcarbonate of bismuth is perfectly insipid, and excites no repugnance. It is given before meals. Adults take it in a little water, and children in honey. It may also be made into lozenges. The dose for adults is from one to three grammes, taken three times a day, in increasing doses.—*Brit. and For. Med.-Chir. Review*, July, 1857, from *Bull. de Thérap.*, Feb. 15, 1857.

14. *A New Principle of Colchicum autumnale*.—M. OBERLIN has just communicated to the Academy of Sciences at Paris some observations on the *Colchicum autumnale*, from which he has extracted a neutral crystalline principle which he calls *colchicéine*, and which differs from *colchicine*, a complex and uncrystallizable product. The properties of *colchicéine* are, to crystallize very easily in pearly laminæ, and to be almost completely insoluble in water, but to communicate to this fluid a slight bitterness, which increases sensibly when it is boiled. At this temperature a notable part of the product is dissolved, but is deposited immediately after cooling. The solvents of *colchicéine* are alcohol, ether, methylated spirit, and chloroform, which contract, when mixed with it, a very intense and persistent bitterness. The alcoholic solution of *colchicéine* is coloured by the addition of bichloride of platinum, but no precipitate is formed. Pure concentrated nitric acid dissolves *colchicéine*, and becomes coloured of a very intense yellow tint, passing into a violet colour, then to a deep red and a clear red, and finally returning to its primitive yellow colour. Concentrated sulphuric acid forms with it a solution of a very intense yellow colour, which is preserved even when it is diluted with water, and brownish flocculi are formed in it. Hydrochloric acid dissolves it with a clear yellow colour. The acetic acid also dissolves it, but without change of colour. *Colchicéine* is soluble in ammonia, and crystallizes by evaporation in the air; and it dissolves in caustic potash. It is unalterable in the air; it has no effect upon turmeric paper or litmus paper; exposed to heat, it first softens and afterwards fuses at 155° (Cent.?). The elementary composition of *colchicéine* is  $C_{62}, 83 + H_6, 60 + N_4, 19 + O_{26}, 38 = 100, 00$ .—*Ibid.*, from *L'Union Méd.*, Jan. 10, 1857.

15. *Ether and Chloroform Gelatinized*.—Professor RUSPONI has succeeded in turning ether and chloroform into gelatine, by shaking them with white of egg in a closed receiver. The compound obtained with the ether is semi-transparent; with the chloroform it is white and opaque. This gelatine is soluble in water, and may be spread on linen in the form of a poultice. It will likewise mix with morphiae, cantharidine, conicine, &c., and may thus become of great therapeutical use.—*Lancet*, August 8, 1857.

16. *Manganese cum Potassa*.—Mr. WEEDEN COOKE (*Lancet*, Aug. 8) extols this new preparation as a valuable caustic in cancer. "This caustic," he says, "contains a very large quantity of oxygen, and would seem to act by imparting this to the tissues, thus producing a chemical combustion. The pain produced is much less than that of any other caustic, and in some instances after the first minute or two there is no pain at all, and I have observed no after ill consequences. This 'manganese cum potassa' caustic is a dark green powder, and may be applied very readily by means of a small pepper castor. A thin coating of it will remove instantly all unpleasant odour from the ulcer, and when used for reducing the exuberant growth, must be applied in a layer as thick as the tissue to be destroyed. By dropping a few drops of water upon the powder after it is applied, it will form a paste, and adhere to the part, after which simple dressing may be applied. By means of carrot poultices the eschar drops off in three or four days. If necessary, the manganese is reapplied in the same easy way until the diseased mass is all destroyed, and the subjacent healthy tissues granulate and cicatrize by means of a slightly stimulating